

PRELIMINARY LISTS OF NEW ENGLAND
PLANTS,—XVII.

WALTER DEANE.

[The sign + indicates that an herbarium specimen has been seen; the sign — that a printed record has been found.]

POLEMONIACEAE.

	Me.	N. H.	Vt.	Mass.	R. I.	Conn.
<i>Gilia coronopifolia</i> , Pers.				+		
“ <i>inconspicua</i> , Dougl.						
“ <i>leucocephala</i> , Gray						
“ <i>linearis</i> , Gray	+		+			
“ <i>tricolor</i> , Benth., var. <i>longipedicellata</i> , Greenman				+		
<i>Phlox maculata</i> , L.						+
“ “ var. <i>candida</i> , Gray						+
“ <i>paniculata</i> , L.		+	+	+	+	+
“ <i>pilosa</i> , L.						+
“ <i>reptans</i> , Michx.			+			
“ <i>subulata</i> , L.	+	+	+	+		+
<i>Polemonium reptans</i> , L.		+				
“ <i>Van-Bruntiae</i> , Britton			+			

HYDROPHYLLACEAE.

	Me.	N. H.	Vt.	Mass.	R. I.	Conn.
<i>Ellisia Nyctelea</i> , L.				+		
<i>Hydrophyllum appendiculatum</i> , Michx.						
“ <i>canadense</i> , L.						
“ <i>virginicum</i> , L.		+	+	+		+
<i>Phacelia brachyloba</i> , Gray				+		
“ <i>circinata</i> , Jacq. f.						
“ <i>congesta</i> , Hook.						
“ <i>Purshii</i> , Buckley					+	
“ <i>tanacetifolia</i> , Benth.				+		
“ <i>viscida</i> , Torr.						
“ <i>Whitlavia</i> , Gray				+		

¹ Printed in RHODORA as supplementary material.

LENTIBULARIACEAE.

	Me.	N. H.	Vt.	Mass.	R. I.	Conn.
<i>Pinguicula vulgaris</i> , L.		+	+			
<i>Utricularia biflora</i> , Lam.				+	+	+
“ <i>clandestina</i> , Nutt.	+		+	+	+	+
“ <i>cleistogama</i> , Britton				+		
“ <i>cornuta</i> , Michx.	+	+	+	+	+	+
“ <i>gibba</i> , L.	+	+	+	+	+	+
“ <i>inflata</i> , Walt.	+	+	+	+	+	+
“ <i>intermedia</i> , Hayne	+	+	+	+	+	+
“ <i>minor</i> , L.	+	—		+	+	+
“ <i>purpurea</i> , Walt.	+	+		+	+	+
“ <i>resupinata</i> , B. D. Greene	+	+	+	+	+	+
“ <i>subulata</i> , L.				+	—	—
“ <i>vulgaris</i> , L.	+	+	+	+	+	+

OROBANCHACEAE.

	Me.	N. H.	Vt.	Mass.	R. I.	Conn.
<i>Conopholis americana</i> , Wallroth	+	+	+	+	+	+
<i>Epiphegus virginiana</i> , Bart.	+	+	+	+	+	+
<i>Orobanche uniflora</i> , L.	+	+	+	+	+	+

MARTYNIACEAE.

	Me.	N. H.	Vt.	Mass.	R. I.	Conn.
<i>Martynia louisiana</i> , Mill.	—			+		

ACANTHACEAE.

	Me.	N. H.	Vt.	Mass.	R. I.	Conn.
<i>Dianthera americana</i> , L.			+			

NOTES ON THE ABOVE LIST.

Judge J. R. Churchill and I discovered *Gilia coronopifolia* in Montague, Mass., on July 24, 1887. It was scattered over a dry, sandy field and along a bank by the road, the spike-like clusters of

scarlet flowers making a beautiful display. We were assured that the plants had been established there for several years. The native home of this species is South Carolina, south and west, and it is cultivated freely in gardens, but we could not trace the source of the Montague plants.

Mrs. Nellie F. Flynn has sent me for examination a specimen of *Gilia linearis* of which she found two plants growing near the Malted Cereal Company's mills in Burlington, Vt., on July 26, 1902. (See Torrey, III, 1903, 105.) In the herbarium of the New England Botanical Club I find a specimen of this species collected by Mr. J. C. Parlin in June, 1902, in an old field in North Berwick, in the extreme southern part of Maine. The label states that the plant probably originated from wool waste. These plants were of course casual introductions, but the species may yet be found in northern New England, for it is locally abundant on sandy beaches and rocky hills of the Baie des Chaleurs between the Province of Quebec and New Brunswick, and about seventy miles from the nearest point of northern Maine.

Mr. J. A. Collins of Lawrence, Mass., has sent me for examination a specimen of *Gilia* which he collected on wool refuse in that city on June 14, 1900, and noted in RHODORA, III, 1901, 92, as *Gilia androsacea*, Steud. He has since presented it to the Gray Herbarium. Dr. J. M. Greenman has kindly made a thorough study of the specimen, and his report, dated May 7, 1904, is as follows :

“I have compared carefully Mr. Collins's specimen with the entire representation of this genus in the Gray Herbarium, but I am unable to identify it unqualifiedly with any species there represented; and I am also unable to place it satisfactorily with anything recently described in this genus.

“The affinity of the plant is evidently with the Californian *G. tricolor*, Benth. and not with *G. androsacea*, Steud. A part of the original collection on which Mr. Bentham founded his *G. tricolor* is in the Gray Herbarium, and a comparison of Mr. Collins's specimen with this material shows the two plants, although differing in several regards, to be conspecific. A considerable suite of specimens representing *G. tricolor* shows, moreover, that the species is quite variable, more especially in the amount of pubescence and in the size and color of the corolla. Giving due weight to the possibility of variation, the single specimen secured by Mr. Collins seems to me to differ suffi-

ciently from the type in habit, in the mode of inflorescence, and in the calyx-characters to merit varietal rank. I therefore submit the following name and characterization :

“*GILIA TRICOLOR*, Benth., var. *longipedicellata*, Greenman, n. var. Stems diffusely branched from the base, 1 to 2 dm. high, sparingly glandular-puberulent: flowers on long slender pedicels (1 to 3.5 cm. in length): tube of the calyx becoming scarious below the sinuses, but little or not at all colored: calyx-teeth lance-acuminate: corolla 7 to 10 mm. long, colored as in the species proper.—MASSACHUSETTS: on wool refuse at Lawrence, 14 June, 1900, *John A. Collins, Jr.*

“It is with some hesitation that I base this new variety upon an isolated specimen, especially as the plant was introduced evidently into the eastern locality, but I feel confident that the same form will be found sooner or later in its native country, most likely in California. Our thanks are due Prof. Willis L. Jepson for a careful comparison of Mr. Collins’s specimen with the material in the Herbarium of the University of California.”

The species of *Phlox* recorded are all escapes that have become more or less established in various localities. A few instances will suffice. Mr. M. L. Fernald found *Phlox paniculata* locally abundant in Langdon, N. H., in July, 1899, in a roadside thicket, and Mr. C. H. Bissell has shown me the species from Lyme, Conn., where he says it was well established in July, 1892. Dr. C. B. Graves collected *Phlox maculata* in June, 1891, not far from New London, Conn., where the species had been established for many years, far from any cultivated plants of the same kind. *Phlox subulata* seems to show a fondness for spreading in and about old graveyards. It was found in such a situation by Mr. E. B. Chamberlain in Cumberland, Me., on June 23, 1902, and by Messrs. L. Andrews and C. H. Bissell in Southington, Conn., in May, 1899 and 1901, as well as by Mr. E. B. Harger in Oxford, Conn., on May 13, 1901. Mr. H. E. Sargent, writing from Wolfboro, N. H., under date of December 9, 1903, says, “It is *very abundant* in some cemeteries here, and also by the roadside in some places.” He has sent me a specimen collected in Alton, N. H., in 1901 by Mr. George Roberts. Mr. E. F. Williams’s herbarium contains specimens of this species recently collected in Milton and Halifax, Mass., while Mr. William H. Blanchard writes me that he found this plant growing in a cemetery in Stratton, Vt., on July 7, 1903. Specimens accom-

panied his letter. *Phlox subulata* grows naturally on Staten Island, and may possibly be found in western New England.

Phlox divaricata is indigenous near Quebec and in northern and western New York and consequently should be expected in northern and western New England.

Mr. H. E. Sargent of Wolfboro, N. H., has shown me a specimen of *Polemonium reptans*, doubtless an escape from cultivation, which a pupil of his collected in that town at a distance from any garden, on May 27, 1901. This species may be found growing naturally in western New England, for it occurs in New York State.

I have in my herbarium a specimen of *Polemonium Van-Bruntiae* collected on July 5, 1879, in Ripton, Vt., on the border of Abby Pond, 1500 feet above sea level, by President Ezra Brainerd, who recorded it in the Bulletin of the Torrey Botanical Club, VIII, 1881, 6. The range of this species as now known is limited to Vermont, New York, New Jersey and Maryland. It should be sought for in western Massachusetts and Connecticut.

Mr. W. P. Rich has given me a specimen of *Ellisia Nyctelea* collected by him in Everett, Massachusetts, on the border of the Revere Beach Parkway, on June 1, 1902. The plant was numerous and had been introduced in grass seed. Mr. Rich has recorded it in RHODORA, IV, 1902, 170. The species grows naturally from Virginia, south and west.

I very much doubt if there is extant a specimen of *Hydrophyllum canadense* from New England, but it certainly grows in western Massachusetts, for Mr. Ralph Hoffmann tells me that he collected it on the north slope of Greylock Mountain close to or within the limits of Williamstown on June 29, 1899. As he was not preserving plants at the time no specimens were kept. It grew "along a brookside," but Mr. Hoffmann did not see much of it. Botanists will certainly visit this locality again, and the species will surely come to light before long. Dr. Jacob Bigelow, in his Florula Bostoniensis, 2d edition, published in Boston in 1824, says, on page 73, of *H. canadense*, "Collected in the western part of the State." A little later Professor Edward Hitchcock, in his Catalogue of plants growing without cultivation in the vicinity of Amherst College, published at Amherst in 1829, says, on p. 23, "Windsor, Dr. Porter." I find other references to this species from Massachusetts, all relating, where any definite locality is given, to the Connecticut valley or

west. Reverend Chester Dewey, in his Report on the herbaceous flowering plants of Massachusetts, Cambridge, 1840, on page 187, gives as the habitat of this species, "woods and hedges; June," but leaves the locality indefinite.

Hydrophyllum canadense was reported from Connecticut nearly three quarters of a century ago in a Catalogue of the phenogamous Plants and of the Ferns, found within five miles of Yale College, by Doctors Eli Ives, William Tully, and Melines C. Leavenworth, published in the Annals of Yale College in New Haven, Connecticut, in 1831, by Ebenezer Baldwin. The reference occurs on page 282 where the name is inserted without comment. There must have been considerable botanical activity in those early days, for the authors say in the preface preceding the list:—"within five miles of Yale College, somewhat more than 1150 phenogamous plants and ferns, have already been ascertained." Recent lists give no additional information in regard to this plant; they either make very indefinite references to it or omit it altogether. It must certainly have occurred in New England when such definite localities have been recorded by botanists of distinction, and it will be most interesting to learn of the rediscovery of the species in western New England. Although it does not occur very close to the borders of New England, yet in Dr. John Torrey's Flora of the State of New York, published at Albany in 1843, we find in volume II, page 92, that it grows "In rich shady soils, northern and western parts of the State; common."

Hydrophyllum appendiculatum is reported from Connecticut in the same list mentioned above under *H. canadense*. The name occurs on the same page and is also without comment. The nearest station that I can find for this species is the flats of the Mohawk River, near Utica, New York, where the plant is rare as it is elsewhere in the State.

In the herbarium of Brown University there is a specimen of *Hydrophyllum virginicum* labelled in Mr. J. L. Bennett's handwriting, "*Hydrophyllum*, R. I. July, 1881, G. Hunt." As the label is not the original one and the locality is very indefinite, it is best to disregard the evidence furnished by the specimen. It may have been an escape, but more proof is needed that the species is native to the State.

At least twenty-five years ago Mr. C. G. Pringle found in a patch

of rich woods in Charlotte, Vt., a *Hydrophyllum* exhibiting characters unlike those of any known species. It grew in "a clump about a foot broad, the entire clump of uniform character and of rather dense growth." As it bore no resemblance to *H. virginicum*, Mr. Pringle says that he supposed it to be *H. canadense*, which he had never seen at that time, and he sent it out to several of his correspondents under that name. A flowering specimen deposited in the Gray Herbarium was examined by Dr. Sereno Watson, Dr. Gray being in Europe at the time, and was pronounced an undescribed species. It was not published, however, and, to quote from Mr. Pringle, who has kindly furnished me with most of my information in a letter dated November 12, 1903: "When I visited Cambridge a few years later, I asked Dr. Gray's opinion of my plant. He assured me that he had examined it critically, had found its flowers defective, sterile, and had judged it to be a monstrosity or abnormal condition of *H. Virginicum*. He charged me to watch the behavior of the plant, to see whether it ever produced seeds. . . . I had my plant marked and was wont to return to it year by year, sometimes taking off more specimens. There was no confusing it with *H. Virginicum*, as it was growing isolated. Though I revisited it during several years, I never found its flowers bearing seed. And more, the last time I saw it, some of the rhizomes which composed the clump were showing normal *H. Virginicum* leaves. I felt positively sure that the plant was recovering its normal *Virginicum* type. There was no chance for mistake about it. After I had been away from home on several annual journeys, I looked again one summer for the plant; but no trace of it was to be found. The young trees, which had sprung up around it, had become so dense as to choke it out."

I have examined two specimens of this remarkable plant, one kindly loaned me by Prof. L. R. Jones from the Herbarium of the University of Vermont, collected on June 2, 1878, and one in the Gray Herbarium, collected on June 6, 1879. The two specimens are identical. If the plant is an instance of teratology, it certainly retains absolutely no characters of whatever species it is allied to, with the exception of the production, on one occasion, of *virginicum* leaves, which Mr. Pringle unfortunately did not preserve. A fact tending to prove its abnormality is the absence of ovules which careful microscopic examination in which I was assisted by Dr. B. L.

Robinson and Dr. J. M. Greenman failed to discover. Dr. Watson, as I stated before, at first believed it to be a new species, and he went so far as to attach a specific name to it on the sheet. He was, however, evidently persuaded by Dr. Gray to abandon that position, for he never published it. Whatever the plant may be, its extraordinary appearance, so totally unlike that of *virginicum* or *canadense*, or, in fact, of any species of *Hydrophyllum*, and the fact that it preserved its characters for so many years, seem to render it advisable to put the plant on record as follows:

HYDROPHYLLUM sp. ? Branching perennial, 4 dm. high: rhizome nodulose, horizontal or oblique: stem branching from near the base, erect, striate, strigillose-pubescent, the short white very acute hairs appressed or more often retrorse: leaves alternate, thin; the blade ovate, coarsely and pinnately about 9-toothed or parted, 6 to 8 cm. long, 4 to 6 cm. broad, pinnately nerved; the teeth or lobes ovate to elliptic-oblong, obtuse or obtusish, mucronate; the sinuses acute or narrowly rounded, above sparsely strigillose, dark green, beneath paler and strigillose; lower petioles very long, 11 to 20 cm. in length, the upper 1.5 to 3.5 cm. long: cymes round-topped, 2.5 cm. broad, raised on slender, strigillose peduncles 2 to 7.5 cm. long; pedicels in anthesis 3 mm. long: calyx deeply 5-parted; lobes linear, acute, 3-nerved, strigillose on the outer surface, hispid-ciliate chiefly near the tip, 3.5 mm. long, 0.8 mm. broad: corolla funnel-formed, 5-parted to the middle, 6 mm. long, probably white; lobes oblong, rounded at the apex; internal folds 2.5 mm. long; filaments 8 mm. long, glabrous; anthers oblong, mucronate: style filiform, glabrous, 1 cm. long, shortly 2-cleft; stigmas capitate; ovary hairy, 1-celled, containing the two large involute placentæ characteristic of the genus, but so far as can be determined entirely devoid of ovules.

The Phacelias listed are waifs growing on flats, in wool-waste and similar places, and have a general interest attaching to introduced plants.

In the Flora of Mount Desert Island, Maine, published by Messrs. Rand and Redfield in 1894, the late Dr. Thomas Morong comments, on page 135, on a peculiar form of *Utricularia gibba* as follows: "The flower has the spurs of *U. biflora* very decidedly, but the foliage and the bladders are those of *U. gibba*. The spur here is oblong, narrow, not curved but projecting straightwise, and the perianth is somewhat larger than is generally the case in *U. gibba*. Other specimens with foliage and bladders better represented might show this to be *U. biflora*, but at present it is safer to call it '*U. gibba* verging towards *U. biflora* in flowers.'" The letter containing the above

remarks was written to me, and I have the very specimens that were examined, for they were returned to me with the letter. They were collected at Somes Pond by Mr. E. L. Rand, who sent them to me. I have other specimens of the same collecting besides abundant typical material from elsewhere. Comparison of all these specimens shows that the points of difference between the Somes Pond form and typical plants lie in the size of the flowers and in the longer narrow spur. Dr. Morong says that the spur is "not curved," but a slight curve does occur in specimens that were not submitted to him. In the Gray Herbarium are specimens collected in South Kingston, R. I., by Olney and Thurber in 1846, resembling in size of flowers and shape of spur the forms submitted to Dr. Morong. These points alone do not seem to warrant regarding the plants as more than a form of *gibba*, and it is much better to follow Dr. Morong's critical judgment as expressed above.

In the Bulletin of the Torrey Botanical Club, III, 1872, 56, Mr. Elihu S. Miller reports finding *Utricularia fibrosa*, Walt. (*U. striata*, Le Conte) at Wading River, in the northern part of Long Island. As the width of Long Island Sound only separates this station from Connecticut, the species should be looked for in the southern part of that State.

The latest published record crediting *Utricularia purpurea* to Vermont, and embodying the results of all previous study of the flora of that State, is found in the Flora of Vermont by Brainerd, Jones and Eggleston, published in 1900, where stations for that species are given on the authority of the late Dr. F. Blanchard of Peacham, Vt. In my search for herbarium specimens of this species from that State I have been kindly aided by the three authors of the above-mentioned Flora, but every effort has failed to disclose the plant. Dr. Blanchard was a copious collector in Vermont and many herbaria contain specimens of his work. These herbaria I have traced and examined with the greatest care, but without result. *Utricularia purpurea* from Vermont has failed to appear. Mr. Eggleston wrote me in December, 1903, that Mrs. Alice F. Stevens of Washington, D. C., had written him in 1895 that in her herbarium, among Dr. Blanchard's plants, of which she had purchased a large number, was *U. purpurea* from East Barnet and West Danville, Vt. Mr. Eggleston, however, did not see the specimens. Mrs. Stevens writes me that she cannot recall the circumstance and that a careful

search in her herbarium does not reveal the plants, but that a few years ago, alarmed at the dampness in the room where they were stored, she examined them and destroyed quite a number, among which might possibly have been the much desired species. She has sent me one of Br. Blanchard's *Utricularias* marked "*U. purpurea?*" but no other data accompanies the sheet, so that it is only presumably from Vermont, while the specimen is not *purpurea* but *intermedia*. Of course I do not think that there is the very slightest doubt that the species occurs in Vermont, for it is found in all the other New England States, specimens from which I have seen, but under the circumstances I do not feel justified in crediting it to the State. It will doubtless turn up during the coming summer in one or more of the many ponds or streams that are scattered over Vermont.

Utricularia subulata reaches its northern limit, as far as I can discover, in southern New England, where I know it to occur only at Worden's Pond, South Kingston, R. I. (*Plants of Rhode Island*, J. L. Bennett, 1888, 28); Nantucket, Mass., where I have collected it at Tom Never's Pond and Gibb's Pond; and "within five miles of Yale College," New Haven, Conn. (*Annals of Yale College in New Haven, Conn.*, E. Baldwin, 1831, 300). This is in the list of plants referred to above under *Hydrophyllum canadense*.

U. cleistogama has been reported only from Nantucket and Cape Cod, Mass., and appears to reach its northern limit here. They are both coastal species.

I have been unable to find even a published record of the occurrence of *Utricularia clandestina* from New Hampshire or of *U. minor* from Vermont, but there is no reason why these species should not grow in these States, as they are so generally distributed over the rest of New England.

In the Herbarium of the New England Botanical Club is a specimen of *Martynia louisiana* labelled "Boston, 1877. C. E. Perkins." This very transient stranger was probably collected on South Boston flats. Prof. George L. Goodale in his *Catalogue of the flowering plants of Maine*, published in the *Proceedings of the Portland Society of Natural History*, I, 1862, 56, says of this species: "occurs in Portland around wharves of Cuban traders."

Prof. L. R. Jones of the University of Vermont, Burlington, Vt., has been kind enough to send me from the herbarium for examination the classic sheet of *Dianthera americana* collected in

the first quarter of the last century, about 1819, in Ferrisburg, Vermont, by Dr. William Paddock, and representing the only known specimen from the only known station in New England. Dr. Paddock was Professor of Botany and Materia Medica in the Medical Department of the University of Vermont from 1821 to 1824. Prof. Jones in a letter to me writes that he has learned from Prof. G. H. Perkins that all of Dr. Paddock's collections (of which there was quite a package in the herbarium when it came into Prof. Perkins's charge) were made about 1819.

Owing to the rarity as well as antiquity of the specimen, a description of it may not be amiss. The original sheet measures twelve by seven inches and contains a small specimen about five inches long, of six leaves and two heads or spikes, one in bud and one in flower. Below this are three separate leaves and one spike in flower with its long peduncle. These fragments are all glued to the sheet. Two labels pasted on the sheet and written in black ink read:— "*Justicia pedunculata*" and "26 Sept. Ferrisburgh Vt." This sheet is pasted on to a larger one, sixteen by ten inches in dimensions and contains the following inscription in red ink in the corner:— "*Justicia Americana*, Vahl. Dr. Paddock's specimen. *Dianthera Americana*, L." In a letter accompanying the sheet Prof. Jones tells me that the words "*Justicia Americana*, Vahl. Dr. Paddock's specimen" are in the handwriting of Prof. Joseph Torrey, who was connected with the University as Professor and President from 1827 to 1867. This is a good voucher for the authenticity of the specimen. Prof. Perkins says that the plant can be no other than the one collected by Dr. Paddock. Definite reference to this specimen is made by William Oakes on page 194 of his *Botany of Vermont*, published in Thompson's *History of Vermont* in 1842, where it is also stated that it was seen by Dr. J. W. Robbins.

Dianthera americana is recorded from near Montreal, from Staten Island and through central New York, and should be looked for in the western parts of Vermont, Massachusetts and Connecticut. It is hoped that the old and interesting record now remaining as the sole one from New England will soon be broken.

CAMBRIDGE, MASSACHUSETTS.